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=> FILE CAPLUS

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FULL ESTIMATED COST	0.15	0.15

FILE 'CAPLUS' ENTERED AT 15:21:15 ON 21 DEC 2000
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FILE COVERS 1967 - 21 Dec 2000 VOL 133 ISS 26
FILE LAST UPDATED: 20 Dec 2000 (20001220/ED)

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=> S 252726-88-8/rn OR 252726-85-5/rn

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      1 252726-88-8
      0 252726-88-8D
      1 252726-88-8/RN
        (252726-88-8 (NOTL) 252726-88-8D )
      1 252726-85-5
      0 252726-85-5D
      1 252726-85-5/RN
        (252726-85-5 (NOTL) 252726-85-5D )
L1      1 252726-88-8/RN OR 252726-85-5/RN
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=> D L1 IBIB AB

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2000 ACS

. ACCESSION NUMBER: 1999:795986 CAPLUS
 DOCUMENT NUMBER: 132:46956
 TITLE: Bacterial mannanases and their gene sequence and industrial applications
 INVENTOR(S): Kauppinen, Markus Sakari; Schulein, Martin; Schnorr, Kirk; Andersen, Lene Nonboe; Bjornvad, Mads Eskelund
 PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
 SOURCE: PCT Int. Appl., 242 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 9964619	A2	19991216	WO 1999-DK314	19990610
WO 2000064619	A3	20000302		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			US 1998-111256	19980610
			DK 1998-1340	19981020
			DK 1998-1341	19981020
			US 1998-105970	19981028
			US 1998-106054	19981028
			DK 1998-1725	19981223
			DK 1999-306	19990305
			DK 1999-307	19990305
			DK 1999-308	19990305
			DK 1999-309	19990305
			US 1999-123543	19990309
			US 1999-123623	19990310
			US 1999-123641	19990310
			US 1999-123642	19990311

AB Novel mannanases comprising an amino acid sequence such as that comprising positions 31-330 of the .beta.-1,4-mannanase from Bacillus sp. I633, or their homologs or encoded by polynucleotide mols. that encode a polypeptide that is at least 65% identical to the the Bacillus I633 amino acid sequence are provided. Mannanases and their genes are also provided from Bacillus sp. AAI12, B. agaradhaerens, B. halodurans, Bacillus sp. AA349, B. clausii, B. licheniformis, Humicola insolens, and Caldicellulosiruptor. The mannanases are alk. and are useful e.g. in cleaning compns., in a fracturing fluid useful to fracture a subterranean formation (oil drilling), for modifying plant material, and for treatment of cellulosic fibers and fabrics.

L1 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2000 ACS
RN 252726-88-8 REGISTRY
CN Mannanase, endo-1,4-.beta.- (Bacillus strain I633) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 59: PN: WO9964619 SEQID: 2 claimed protein
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2000 ACS
RN 252726-85-5 REGISTRY
CN 1-300-Mannanase, endo-1,4-.beta.- (Bacillus strain I633) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 57: PN: WO9964619 SEQID: 2 claimed protein
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2000 ACS
RN 252726-70-8 REGISTRY
CN Mannanase, endo-1,4-.beta.- (Bacillus strain I633 precursor) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2: PN: WO9964619 SEQID: 2 claimed protein
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2000 ACS
RN 252726-46-8 REGISTRY
CN Mannanase, endo-1,4-.beta.- (Bacillus strain I633) fusion protein with peptide (synthetic linker) fusion protein with cellulase (Clostridium thermocellum strain YS gene cipB fragment) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 4: PN: WO9964619 SEQID: 4 claimed protein
FS PROTEIN SEQUENCE
MF Unspecified

CI MAN
SR CA
LC STN Files: CA, CAPLUS

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> D L1 SQIDE 1-4

L1 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2000 ACS
RN 252726-88-8 REGISTRY
CN Mannanase, endo-1,4-.beta.- (Bacillus strain I633) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 59: PN: WO9964619 SEQID: 2 claimed protein
FS PROTEIN SEQUENCE
SQL 460

SEQ 1 NANSGFYVSG TTLYDANGNP FVMRGINHGH AWYKDQATTA IEGIANTGAN
=====

51	TVRIVLS	DGG	QWTKDDI	HTV	RNLISLA	EDN	HLVAVPE	VHD	ATGYDS	IASL
101	NRAVDY	WIEM	RSALIGK	EDT	VIINIAN	EW	GSWEGDA	WAD	GYKQAI	PRLR
151	NAGLNH	TLMV	DAAGWG	QFPQ	SIHDYGR	EVF	NADPQRN	TMF	SIHMYE	YAGG
201	NASQVR	TNID	RVLNQDL	LALV	IGFEGHR	HTN	GDVDEAT	IMS	YSEQRG	VGWL
251	AWSWKG	NGPE	WEYLDLS	NDW	AGNNLT	AWGN	TIVNGPY	GLR	ETSRLS	TVFT
301	GGGSDG	GTSP	TTLYDFE	GSM	QGW	TGSSL	SG	GPWAVTE	WSS	KGSHSL
351	QLSSNS	QHYL	HVIQNTS	LQ	NSRIQAT	VKH	ANWGSV	GNM	TARLYV	KTGH
401	GYTWYS	GSFV	PINGSSG	TTL	SLDLSN	VQNL	SQVREIG	VQF	QSASDS	SGQT
451	SIYIDN	VIVE								

HITS AT: 2-18
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2000 ACS
RN 252726-85-5 REGISTRY
CN 1-300-Mannanase, endo-1,4-.beta.- (Bacillus strain I633) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 57: PN: WO9964619 SEQID: 2 claimed protein
FS PROTEIN SEQUENCE
SQL 300

SEQ 1 NANSGFYVSG TTLYDANGNP FVMRGINHGH AWYKDQATTA IEGIANTGAN
=====

51	TVRIVLS	DGG	QWTKDDI	HTV	RNLISLA	EDN	HLVAVPE	VHD	ATGYDS	IASL
101	NRAVDY	WIEM	RSALIGK	EDT	VIINIAN	EW	GSWEGDA	WAD	GYKQAI	PRLR
151	NAGLNH	TLMV	DAAGWG	QFPQ	SIHDYGR	EVF	NADPQRN	TMF	SIHMYE	YAGG
201	NASQVR	TNID	RVLNQDL	LALV	IGFEGHR	HTN	GDVDEAT	IMS	YSEQRG	VGWL
251	AWSWKG	NGPE	WEYLDLS	NDW	AGNNLT	AWGN	TIVNGPY	GLR	ETSRLS	TVFT

HITS AT: 2-18
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2000 ACS
RN 252726-70-8 REGISTRY

CN Mannanase, endo-1,4-.beta.- (Bacillus strain I633 precursor) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 2: PN: WO9964619 SEQID: 2 claimed protein

FS PROTEIN SEQUENCE

SQL 490

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SEQ      1 LNNGFKKIFS ITLSLLSS ILFVSGTSTA NANSGFYVSG TTLYDANGNP
          =====
          51 FVMRGINHGHA AWYKDQATTA IEGIANTGAN TVRIVLSDGG QWTKDDIHTV
          101 RNLISLAEDN HLVAVPEVHD ATGYDSIASL NRAVDYWIEM RSALIGKEDT
          151 VIINIANEWF GSWEGDAWAD GYKQAIPLR NAGLNHTLMV DAAGWGQFPQ
          201 SIHDYGREVF NADPQRNTMF SIHMYEYAGG NASQVRTNID RVLNQDLALV
          251 IGEFGHRHTN GDVDEATIMS YSEQRGVGWL AWSWKGNGPE WEYLDLSNDW
          301 AGNNLTAWGN TIVNGPYGLR ETSRLSTVFT GGSDDGGTSP TTLYDFEGSM
          351 QGWTGSSLSG GPWAVTEWSS KGSHSLKADI QLSSNSQHYL HVIQNTSLQQ
          401 NSRIQATVKH ANWGSVGNM TARLYVKTGH GYTWYSGSFV PINGSSGTTL
          451 SLDLSNVQNL SQVREIGVQF QSASDSSGQT SIYIDNVIVE
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HITS AT: 32-48

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L1 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2000 ACS

RN 252726-46-8 REGISTRY

CN Mannanase, endo-1,4-.beta.- (Bacillus strain I633) fusion protein with peptide (synthetic linker) fusion protein with cellulase (Clostridium thermocellum strain YS gene cipB fragment) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 4: PN: WO9964619 SEQID: 4 claimed protein

FS PROTEIN SEQUENCE

SQL 476

```
SEQ      1 ANSGFYVSGT TLYDANGNPF VMRGINHGHA WYKDQATTAI EGIANTGANT
          =====
          51 VRIVLSDGGQ WTKDDIHTVR NLISLAEDNH LVAVPEVHDA TGYDSIASLN
          101 RAVDYWIEMR SALIGKEDTV IINIANEWF GSWEGDAWADG YKQAIPLRN
          151 AGLNHTLMVD AAGWGQFPQS IHDYGREVFN ADPQRNTMFS IHMYEYAGGN
          201 ASQVRTNIDR VLNQDLALVI GEFGHRHTNG DVDEATIMSY SEQRGVGWLA
          251 WSWKGNGPEW EYLDLSNDWA GNNLTAWGNT IVNGPYGLRE TSRLSTVFTA
          301 SPEPTPEPTA NTPVSGNLKV EFNYSNPSDT TNSINPQFKV TNTGSSAIDL
          351 SKLTLRYYYT VDGQKDQTFW CDHAAIIGSN GSYNGITSNV KGTFVKMSSS
          401 TNNADTYLEI SFTGGTLEPG AHVQIQGRFA KNDWSNYTQS NDYSFKSRSQ
          451 FVEWDQVTAY LNGVLVWGKE PGGSVV
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HITS AT: 1-17